

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (original): A coating comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 2 (original): The coating of claim 1, wherein the active biomolecule comprises a proteinaceous molecule.

Claim 3 (original): The coating of claim 2, wherein the proteinaceous molecule binds a ligand, contacts a living organism, or a combination thereof.

Claim 4 (original): The coating of claim 3, wherein the proteinaceous molecule binds a ligand.

Claim 5 (original): The coating of claim 4, wherein the ligand comprises an antigen, a substrate, an inhibitor, or a combination thereof.

Claim 6 (currently amended): The coating of ~~claim 5~~ claim 4, wherein the ligand comprises a chemical toxic to humans.

Claim 7 (currently amended): The coating of ~~claim 6~~ claim 4, wherein the ligand comprises an organophosphorus compound.

Claim 8 (original): The coating of claim 2, wherein the proteinaceous molecule comprises a peptide, a polypeptide, a protein, or a combination thereof.

Claim 9 (currently amended): The coating of ~~claim 8~~ claim 2, wherein the proteinaceous molecule comprises an enzyme, an antibody, a receptor, a transport protein, structural protein, or a combination thereof.

Claim 10 (currently amended): The coating of ~~claim 8~~ claim 9, wherein the proteinaceous molecule comprises an enzyme.

Claim 11 (original): The coating of claim 10, wherein the enzyme comprises an oxidoreductase, a transferase, a hydrolase, a lyase, an isomerase, a ligase, or a combination thereof.

Claim 12 (original): The coating of claim 11, wherein the enzyme comprises a hydrolase.

Claim 13 (original): The coating of claim 12, wherein the hydrolase comprises an esterase.

Claim 14 (original): The coating of claim 13, wherein the esterase comprises a phosphoric triester hydrolase.

Claim 15 (original): The coating of claim 14, wherein the phosphoric triester hydrolase comprises an aryldialkylphosphatase, a diisopropyl-fluorophosphatase, or a combination thereof.

Claim 16 (original): The coating of claim 14, wherein the phosphoric triester hydrolase comprises a combination of phosphoric triester hydrolases.

Claim 17 (original): The coating of claim 15, wherein the phosphoric triester hydrolase comprises an aryldialkylphosphatase.

Claim 18 (currently amended): The coating of ~~claim 15~~ claim 17, wherein the aryldialkylphosphatase comprises an organophosphorus hydrolase, a human paraoxonase, an animal carboxylase, or a functional equivalent thereof.

Claim 19 (currently amended): The coating of ~~claim 15~~ claim 18, wherein the aryldialkylphosphatase comprises an organophosphorus hydrolase or a functional equivalent thereof.

Claim 20 (original): The coating of claim 19, wherein the organophosphorus hydrolase comprises an *Agrobacterium radiobacter* P230 organophosphate hydrolase, a *Flavobacterium balustinum* parathion hydrolase, a *Pseudomonas diminuta* phosphotriesterase, a *Flavobacterium sp opd* gene product, a *Flavobacterium sp.* parathion hydrolase *opd* gene product, or a functional equivalent thereof.

Claim 21 (original): The coating of claim 20, wherein the organophosphorus hydrolase comprises a functional equivalent of *Agrobacterium radiobacter* P230 organophosphate hydrolase, a *Flavobacterium balustinum* parathion hydrolase, a *Pseudomonas diminuta* phosphotriesterase, a *Flavobacterium sp opd* gene product, or a *Flavobacterium sp.* parathion hydrolase *opd* gene product.

Claim 22 (original): The coating of claim 21, wherein the functional equivalent is a structural analog.

Claim 23 (currently amended): The coating of claim 22, wherein the structural analog comprises a  $\text{Co}^{2+}$ ,  $\text{Fe}^{2+}$ ,  $\text{Cu}^{2+}$ ,  $\text{Mn}^{2+}$ ,  ~~$\text{Cd}^{2+}$ , or  $\text{Ni}^{2+}$~~   $\text{Cd}^{2+}$ , or  $\text{Ni}^{2+}$  at the enzyme active site.

Claim 24 (original): The coating of claim 21, wherein the functional equivalent is a sequence analog.

Claim 25 (currently amended): The coating of ~~claim 24~~ claim 24, wherein the sequence analog is an alteration in sequence length.

Claim 26 (original): The coating of claim 24, wherein the sequence analog lacks a leader peptide sequence.

Claim 27 (original): The coating of claim 24, wherein the sequence analog is a fusion protein.

Claim 28 (original): The coating of claim 20, wherein the organophosphorus hydrolase comprises a *Pseudomonas diminuta* phosphotriesterase, or a functional equivalent thereof.

Claim 29 (original): The coating of claim 28, wherein the organophosphorus hydrolase comprises a *Pseudomonas diminuta* phosphotriesterase.

Claim 30 (original): The coating of claim 28, wherein the organophosphorus hydrolase comprises a *Pseudomonas diminuta* phosphotriesterase functional equivalent.

Claim 31 (currently amended): The coating of ~~claim 28~~ claim 30, wherein the *Pseudomonas diminuta* phosphotriesterase functional equivalent comprises a sequence analog.

Claim 32 (original): The coating of claim 31, wherein the sequence analog comprises an amino acid substitution.

Claim 33 (original): The coating of claim 32, wherein the sequence analog is H55C, H57C, C59A, G60A, S61A, I106A, I106G, W131A, W131F, W131K, F132A, F132H, F132Y, L136Y, L140Y, H201C, H230C, H254A, H254R, H254S, H257A, H257L, H257Y, L271A, L271Y, L303A, F306A, F306E, F306H, F306K, F306Y, S308A, S308G, Y309A, M317A, M317H, M317K, M317R, H55C/H57C, H55C/H201C, H55C/H230C, H57C/H201C, H57C/H230C, A80V/S365P, I106A/F132A, I106A/S308A, I106G/F132G, I106G/S308G, F132Y/F306H, F132H/F306H, F132H/F306Y, F132Y/F306Y, F132A/S308A, F132G/S308G, L182S/V310A, H201C/H230C, H254R/H257L, H55C/H57C/H201C, H55C/H57C/H230C, H55C/H201C/H230C, I106A/F132A/H257Y, I106A/F132A/H257W, I106G/F132G/S308G, L130M/H257Y/I274N, H257Y/I274N/S365P, H55C/H57C/H201C/H230C, I106G/F132G/H257Y/S308G, or A14T/A80V/L185R/H257Y/I274N.

Claim 34 (currently amended): The coating of ~~claim 17~~ claim 18, wherein the arylalkylphosphatase comprises a human paraoxonase or a functional equivalent thereof.

Claim 35 (original): The coating of claim 34, wherein the human paraoxonase comprises an HPON1 gene product or a functional equivalent thereof.

Claim 36 (original): The coating of claim 35, wherein the human paraoxonase comprises a HPON1 gene product functional equivalent.

Claim 37 (currently amended): The coating of ~~claim 28~~ claim 36, wherein the HPON1 gene product functional equivalent comprises a sequence analog.

Claim 38 (original): The coating of claim 37, wherein the sequence analog comprises an amino acid substitution.

Claim 39 (original): The coating of claim 38, wherein the sequence analog is E32A, E48A, E52A, D53A, D88A, D107A, H114N, D121A, H133N, H154N, H160N, W193A, W193F, W201A, W201F, H242N, H245N, H250N, W253A, W253F, D273A, W280A, W280F, H284N, or H347N.

Claim 40 (currently amended): The coating of ~~claim 17~~ claim 18, wherein the arylalkylphosphatase comprises an animal carboxylase or a functional equivalent thereof.

Claim 41 (original): The coating of claim 40, wherein the animal carboxylase comprises an insect carboxylase or a functional equivalent thereof.

Claim 42 (currently amended): The coating of claim 41, wherein the insect carboxylase comprises a *Plodia interpunctella* carboxylase, *Chrysomya putoria* carboxylase, *Lucilia cuprina* carboxylase, *Musca domestica* carboxylase-~~carboxylase~~, or a functional equivalent thereof.

Claim 43 (original): The coating of claim 15, wherein the phosphoric triester hydrolase comprises a diisopropyl-fluorophosphatase.

Claim 44 (original): The coating of claim 43, wherein the diisopropyl-fluorophosphatase comprises an organophosphorus acid anhydrolase, a squid-type DFPase, a Mazur-type DFPase, or a functional equivalent thereof.

Claim 45 (original): The coating of claim 44, wherein the diisopropyl-fluorophosphatase comprises an organophosphorus acid anhydrolase or a functional equivalent thereof.

Claim 46 (original): The coating of claim 45, wherein the organophosphorus acid anhydrolase comprises an *Altermonas* organophosphorus acid anhydrolase, a prolidase, or a functional equivalent thereof.

Claim 47 (original): The coating of claim 46, wherein the organophosphorus acid anhydrolase comprises an *Altermonas* organophosphorus acid anhydrolase or a functional equivalent thereof.

Claim 48 (original): The coating of claim 47, wherein the *Altermonas* organophosphorus acid anhydrolase comprises an *Alteromonas* sp JD6.5 organophosphorus acid anhydrolase, an *Alteromonas haloplanktis* organophosphorus acid anhydrolase, an *Altermonas undina* organophosphorus acid anhydrolase, or a functional equivalent thereof.

Claim 49 (original): The coating of claim 46, wherein the organophosphorus acid anhydrolase comprises a prolidase or a functional equivalent thereof.

Claim 50 (original): The coating of claim 49, wherein the prolidase comprises a human prolidase, a *Mus musculus* prolidase, a *Lactobacillus helveticus* prolidase, an *Escherichia coli* prolidase, an *Escherichia coli* aminopeptidase P, or a functional equivalent thereof.

Claim 51 (original): The coating of claim 44, wherein the diisopropyl-fluorophosphatase comprises a squid-type DFPase, or a functional equivalent thereof.

Claim 52 (original): The coating of claim 51, wherein the squid-type DFPase comprises a *Loligo vulgaris* DFPase, a *Loligo pealei* DFPase, a *Loligo opalescens* DFPase, or a functional equivalent thereof.

Claim 53 (original): The coating of claim 52, wherein the squid-type DFPase comprises a *Loligo vulgaris* DFPase, or a functional equivalent thereof.

Claim 54 (currently amended): The coating of claim 53, wherein the squid-type DFPase comprises a *Loligo vulgaris* DFPase, ~~or a functional equivalent thereof.~~

Claim 55 (currently amended): The coating of ~~claim 54~~ claim 53, wherein the squid-type DFPase comprises a *Loligo vulgaris* DFPase functional equivalent.

Claim 56 (original): The coating of claim 55, wherein the *Loligo vulgaris* DFPase functional equivalent comprises a sequence analog.

Claim 57 (original): The coating of claim 56, wherein the sequence analog comprises an amino acid substitution.

Claim 58 (original): The coating of claim 57, wherein the sequence analog is H181N, H224N, H274N, H219N, H248N, or H287N.

Claim 59 (currently amended): The coating of ~~claim 57~~ claim 56, wherein the sequence analog is an alteration in sequence length.

Claim 60 (original): The coating of claim 59, wherein the sequence analog is a fusion protein.

Claim 61 (original): The coating of claim 44, wherein the diisopropyl-fluorophosphatase comprises a Mazur-type DFPase or a functional equivalent thereof.

Claim 62 (original): The coating of claim 61, wherein the Mazur-type DFPase comprises a mouse liver DFPase, a hog kidney DFPase, a *Bacillus stearothermophilus* strain OT DFPase, an *Escherichia coli* DFPase, or a functional equivalent thereof.

Claim 63 (currently amended): The coating of ~~claim 4~~ claim 14, wherein the phosphoric triester hydrolase comprises a *Plesiomonas* sp. strain M6 *mpd* gene product, a *Xanthomonas* sp. phosphoric triester hydrolase, a *Tetrahymena* phosphoric triester hydrolase, an insect cholinesterase, or a functional equivalent thereof.

Claim 64 (currently amended): The coating of ~~claim 2~~ claim 3, wherein the proteinaceous molecule contacts a living organism.

Claim 65 (original): The coating of claim 64, wherein the proteinaceous molecule comprises a ligand capable of binding to an active biomolecule of the living organism.

Claim 66 (original): The coating of claim 65, wherein the active biomolecule of the living organism comprises a receptor, an enzyme, a transport protein, or a combination thereof.

Claim 67 (currently amended): The coating of claim 1, wherein the ~~biomolecular~~ biomolecule composition comprises 0.001% to 40% of the coating ~~composition~~ by weight or volume.

Claim 68 (currently amended): The coating of claim 1, wherein the active biomolecule comprises 0.001% to 40% of the coating ~~composition~~ by weight or volume.

Claim 69 (original): The coating of claim 1, wherein the biomolecule composition comprises a microorganism based particulate material.

Claim 70 (currently amended): The coating of claim 69, wherein the microorganism based particulate material is a whole cell material.

Claim 71 (currently amended): The coating of ~~claim 70~~ claim 69, wherein the microorganism based particulate material is a cell fragment microorganism based particulate material.

Claim 72 (original): The coating of claim 1, wherein the coating comprises a buffer.

Claim 73 (currently amended): The coating of ~~claim 24~~ claim 72, wherein the buffer comprises a bicarbonate.

Claim 74 (currently amended): The coating of claim 1, wherein the coating is 5 um to 1500 um thick upon ~~the~~ a surface.

Claim 75 (currently amended): The coating of claim 1, wherein the coating is 15 um to 500 um thick upon ~~the~~ a surface.

Claim 76 (original): The coating of claim 1, wherein the coating comprises a paint.

Claim 77 (original): The coating of claim 1, wherein the coating comprises a clear coating.

Claim 78 (original): The coating of claim 77, wherein the clear coating comprises a lacquer, a varnish, a shellac, a stain, a water repellent coating, or a combination thereof.

Claim 79 (original): The coating of claim 1, wherein the coating comprises a multicoat system.

Claim 80 (original): The coating of claim 79, wherein the multicoat system comprises 2 to 10 layers.

Claim 81 (currently amended): The coating of claim 80, wherein one layer of the multicoat system comprises the ~~biomolecular~~ biomolecule composition.

Claim 82 (currently amended): The coating of claim 80, wherein a plurality of layers of the multicoat system comprise the ~~biomolecular~~ biomolecule composition.

Claim 83 (original): The coating of claim 80, wherein each layer of the multicoat system is coating is 15 um to 150 um thick.

Claim 84 (original): The coating of claim 79, wherein the multicoat system comprises a sealer, a water repellent, a primer, an undercoat, or a topcoat.

Claim 85 (original): The coating of claim 79, wherein the multicoat system comprises a topcoat.

Claim 86 (currently amended): The coating of claim 85, wherein the topcoat comprises the ~~biomolecular~~ biomolecule composition.

Claim 87 (original): The coating of claim 1, wherein the coating comprises a binder, a liquid component, a colorant, an additive, or a combination thereof.

Claim 88 (currently amended): The coating of claim 1, wherein the coating is a coating that is capable of undergoing film formation.

Claim 89 (original): The coating of claim 88, wherein film formation occurs at ambient conditions.

Claim 90 (original): The coating of claim 88, wherein film formation occurs at baking conditions.

Claim 91 (original): The coating of claim 90, wherein baking conditions is between 40°C and 50°C.

Claim 92 (original): The coating of claim 90, wherein baking conditions is between 40°C and 65°C.

Claim 93 (original): The coating of claim 90, wherein baking conditions is between 40°C and 110°C.

Claim 94 (original): The coating of claim 88, wherein the coating comprises a volatile component and a non-volatile component.

Claim 95 (original): The coating of claim 94, wherein the coating undergoes film formation by loss of part of the volatile component.

Claim 96 (original): The coating of claim 94, wherein the volatile component comprises a volatile liquid component.

Claim 97 (original): The coating of claim 96, wherein the volatile liquid component comprises a solvent, a thinner, a diluent, or a combination thereof.

Claim 98 (original): The coating of claim 94, wherein the non-volatile component comprises a binder, a colorant, a plasticizer, a coating additive, or a combination thereof.

Claim 99 (original): The coating of claim 88, wherein film formation occurs by crosslinking of a binder.



Claim 100 (original): The coating of claim 99, wherein film formation occurs by crosslinking of a plurality of binders.

Claim 101 (original): The coating of claim 88, wherein film formation occurs by irradiating the coating.

Claim 102 (currently amended): The coating of ~~claim 1~~ claim 88, wherein the coating produces a self-cleaning film.

Claim 103 (original): The coating of claim 1, wherein the coating is a non-film forming coating.

Claim 104 (original): The coating of claim 103, wherein the non-film forming coating comprises a non-film formation binder.

Claim 105 (original): The coating of claim 103, wherein the non-film forming coating comprises a coating component in a concentration that is insufficient to produce a solid film.

Claim 106 (original): The coating of claim 105, wherein the coating component comprises a binder that contributes to thermoplastic film formation.

Claim 107 (original): The coating of claim 105 wherein the coating component contributes to thermosetting film formation.

Claim 108 (original): The coating of claim 107, wherein the coating component comprises a binder, catalyst, initiator, or combination thereof.

Claim 109 (original): The coating of claim 105, wherein the coating component has a concentration of 0%.

Claim 110 (currently amended): The coating of ~~claim 110~~ claim 88, wherein the coating produces a temporary film.

Claim 111 (original): The coating of claim 110, wherein the temporary film has a poor resistance to a coating remover.

Claim 112 (original): The coating of claim 110, wherein the temporary film has a poor scrub resistance, a poor solvent resistance, a poor water resistance, a poor weathering property, a poor adhesion property, or a combination thereof.

Claim 113 (original): The coating of claim 1, wherein the coating comprises an architectural coating, an industrial coating, a specification coating, or a combination thereof.

Claim 114 (currently amended): The coating of ~~claim 1~~ claim 113, wherein the coating comprises an architectural coating.

Claim 115 (original): The coating of claim 114, wherein the architectural coating comprises a wood coating, a masonry coating, an artist's coating, or a combination thereof.

Claim 116 (original): The coating of claim 114, wherein the architectural coating has a pot life of at least 12 months at ambient conditions.

Claim 117 (original): The coating of claim 114, wherein the architectural coating undergoes film formation at ambient conditions.

Claim 118 (currently amended): The coating of ~~claim 1~~ claim 113, wherein the coating comprises an industrial coating.

Claim 119 (original): The coating of claim 118, wherein the industrial coating comprises an automotive coating, a can coating, sealant coating, a marine coating, or a combination thereof.

Claim 120 (currently amended): The coating of ~~claim 119~~ claim 118, wherein the industrial coating undergoes film formation at baking conditions.

Claim 121 (currently amended): The coating of ~~claim 1~~ claim 113, wherein the coating comprises a specification coating.

Claim 122 (currently amended): The coating of claim 121, wherein the specification coating comprises a camouflage coating, a pipeline coating, a traffic marker coating, an aircraft coating, a nuclear power plant coating, or a combination thereof.

Claim 123 (original): The coating of claim 1, wherein the coating comprises a water-borne coating.

Claim 124 (original): The coating of claim 123, wherein the water-borne coating is a latex coating.

Claim 125 (original): The coating of claim 123, wherein the water-borne coating has a density of 1.20 kg/L to 1.50 kg/L.

Claim 126 (original): The coating of claim 1, wherein the coating comprises a solvent-borne coating.

Claim 127 (original): The coating of claim 126, wherein the solvent-borne coating has a density of 0.90 kg/L to 1.2 kg/L.

Claim 128 (original): The coating of claim 1, wherein the coating has a viscosity during application of 72 Ku to 95 Ku.

Claim 129. (original): The coating of claim 1, wherein the coating has a viscosity prior to application of 100 P to 1000 P.

Claim 130 (original): The coating of claim 1, wherein the coating has a viscosity during application of 0.5 P to 2.5 P.

Claim 131. (original): The coating of claim 1, wherein the coating has a viscosity of 100 P to 1000 P upon a surface immediately after application.

Claim 132 (currently amended): The coating of ~~claim 1~~ claim 87, wherein the coating comprises a binder.

Claim 133 (original): The coating of claim 132, wherein the binder comprises a thermoplastic binder, a thermosetting binder, or a combination thereof.

Claim 134 (original): The coating of claim 133, wherein the coating comprises a thermoplastic binder.

Claim 135 (currently amended): The coating of claim 134, wherein the coating is a coating capable of producing ~~produces~~ a film by thermoplastic film formation.

Claim 136 (original): The coating of claim 133, wherein the coating comprises a thermosetting binder.

Claim 137 (currently amended): The coating of claim 136, wherein the coating is a coating capable of producing ~~produces~~ a film by thermosetting film formation.

Claim 138 (original): The coating of claim 132, wherein the binder comprises an oil-based binder.

Claim 139 (original): The coating of claim 138, wherein the oil-based binder comprises an oil, an alkyd, an oleoresinous binder, a fatty acid epoxide ester, or a combination thereof.

Claim 140 (currently amended): The coating of ~~claim 139~~ claim 138, wherein the coating produces a layer 15  $\mu\text{m}$  to 25  $\mu\text{m}$  thick upon the vertical surface or 15  $\mu\text{m}$  to 40  $\mu\text{m}$  thick upon the horizontal surface.

Claim 141 (original): The coating of claim 132, wherein the binder comprises an oil.

Claim 142 (original): The coating of claim 132, wherein the binder comprises an alkyd.

Claim 143 (original): The coating of claim 132, wherein the binder comprises an oleoresinous binder.

Claim 144 (original): The coating of claim 132, wherein the binder comprises a fatty acid epoxide ester.

Claim 145 (original): The coating of claim 132, wherein the binder comprises a polyester resin.

Claim 146 (original): The coating of claim 145, wherein the polyester resin comprises a hydroxy-terminated polyester.

Claim 147 (original): The coating of claim 145, wherein the polyester resin comprises a carboxylic acid-terminated polyester.

Claim 148 (original): The coating of claim 145, wherein the coating comprises a urethane, an amino resin, or a combination thereof.

Claim 149 (original): The coating of claim 132, wherein the binder comprises a modified cellulose.

Claim 150 (original): The coating of claim 149, wherein the modified cellulose comprises a cellulose ester.

Claim 151 (original): The coating of claim 149, wherein the modified cellulose comprises a nitrocellulose.

Claim 152 (currently amended): The coating of claim 149, wherein the coating comprises an amino binder, an acrylic binder, a urethane binder, or a combination thereof.

Claim 153 (original): The coating of claim 132, wherein the binder comprises a polyamide.

Claim 154 (original): The coating of claim 153, wherein the coating comprises an epoxide.

Claim 155 (original): The coating of claim 132, wherein the binder comprises an amino resin.

Claim 156 (original): The coating of claim 155, wherein the coating comprises an acrylic binder, an alkyd resin, a polyester binder, or a combination thereof.

Claim 157 (currently amended): The coating of claim 132, wherein the binder comprises ~~an~~ a urethane binder.

Claim 158 (original): The coating of claim 157, wherein the coating comprises a polyol, an amine, an epoxide, a silicone, a vinyl, a phenolic, a triacrylate, or a combination thereof.

Claim 159 (original): The coating of claim 132, wherein the binder comprises a phenolic resin.

Claim 160 (original): The coating of claim 159, wherein the coating comprises an alkyd resin, an amino resin, a blown oil, an epoxy resin, a polyamide, a polyvinyl resin, or a combination thereof.

Claim 161 (original): The coating of claim 132, wherein the binder comprises an epoxy resin.

Claim 162 (currently amended): The coating of claim 161, wherein the coating comprises an amino-resin resin, a phenolic resin, a polyamide, a ketimine, an aliphatic amine, or a combination thereof.

Claim 163 (original): The coating of claim 161, wherein the epoxy resin comprises a cycloaliphatic epoxy binder.

Claim 164 (original): The coating of claim 163, wherein the coating comprises a polyol.

Claim 165 (original): The coating of claim 132, wherein the binder comprises a polyhydroxyether binder.

Claim 166 (original): The coating of claim 165, wherein the coating comprises an epoxide, a polyurethane comprising an isocyanate moiety, an amino resin, or a combination thereof.

Claim 167 (original): The coating of claim 132, wherein the binder comprises an acrylic resin.

Claim 168 (original): The coating of claim 167, wherein the coating comprises an epoxide, a polyurethane comprising an isocyanate moiety, an amino resin, or a combination thereof.

Claim 169 (original): The coating of claim 132, wherein the binder comprises a polyvinyl binder

Claim 170 (currently amended): The coating of claim 169, wherein the coating comprises an alkyd, ~~an~~ a urethane, an amino-resin, or a combination thereof.

Claim 171 (original): The coating of claim 132, wherein the binder comprises a rubber resin.

Claim 172 (original): The coating of claim 171, wherein the rubber resin comprises a chlorinated rubber resin, a synthetic rubber resin, or a combination thereof.

Claim 173 (original): The coating of claim 171, wherein the coating comprises an acrylic resin, an alkyd resin, a bituminous resin, or a combination thereof.

Claim 174 (original): The coating of claim 132, wherein the binder comprises a bituminous binder.

Claim 175 (original): The coating of claim 174, wherein the coating comprises an epoxy resin.

Claim 176 (original): The coating of claim 132, wherein the binder comprises a polysulfide binder.

Claim 177 (original): The coating of claim 176, wherein the coating comprises a peroxide, a binder comprising an isocyanate moiety, or a combination thereof.

Claim 178 (original): The coating of claim 132, wherein the binder comprises a silicone binder.

Claim 179 (original): The coating of claim 178, wherein the coating comprises an organic binder.

Claim 180 (currently amended): The coating of ~~claim 4~~ claim 87, wherein the coating comprises a liquid component.

Claim 181 (original): The coating of claim 180, wherein the liquid component comprises a solvent, a thinner, a diluent, a plasticizer, or a combination thereof.

Claim 182 (original): The coating of claim 180, wherein the liquid component comprises a liquid organic compound, an inorganic compound, water, or a combination thereof.

Claim 183 (currently amended): The coating of ~~claim 180~~ claim 182, wherein the liquid component comprises a liquid organic compound.

Claim 184 (original): The coating of claim 183, wherein the liquid organic compound comprises a hydrocarbon, an oxygenated compound, a chlorinated hydrocarbon, a nitrated hydrocarbon, a miscellaneous organic liquid component, a plasticizer, or a combination thereof.

Claim 185 (original): The coating of claim 184, wherein the liquid organic compound comprises a hydrocarbon.

Claim 186 (original): The coating of claim 185, wherein the hydrocarbon comprises an aliphatic hydrocarbon, a cycloaliphatic hydrocarbon, a terpene, an aromatic hydrocarbon, or a combination thereof.

Claim 187 (original): The coating of claim 186, wherein the hydrocarbon comprises an aliphatic hydrocarbon.

Claim 188 (currently amended): The coating of claim 187, wherein the aliphatic hydrocarbon comprises a petroleum ether, pentane, hexane, heptane, isododecane, a kerosene, a mineral spirit, a VMP-~~naphtha~~ naphtha, or a combination thereof.

Claim 189 (original): The coating of claim 186, wherein the hydrocarbon comprises a cycloaliphatic hydrocarbon.

Claim 190 (original): The coating of claim 189, wherein the cycloaliphatic hydrocarbon comprises cyclohexane, methylcyclohexane, ethylcyclohexane, tetrahydronaphthalene, decahydronaphthalene, or a combination thereof.

Claim 191 (original): The coating of claim 186, wherein the hydrocarbon comprises a terpene.

Claim 192 (original): The coating of claim 191, wherein the terpene comprises wood terpentine oil, pine oil,  $\alpha$ -pinene,  $\beta$ -pinene, dipentene, D-limonene, or a combination thereof.

Claim 193 (original): The coating of claim 186, wherein the hydrocarbon comprises an aromatic hydrocarbon.

Claim 194 (currently amended): The coating of claim 193, wherein the aromatic hydrocarbon comprises benzene, toluene, ethylbenzene, xylene, cumene, a type I high flash aromatic-~~naphtha~~ naphtha, a type II high flash aromatic-~~naphtha~~ naphtha, mesitylene, pseudocumene, cymol, styrene, or a combination thereof.

Claim 195 (currently amended): The coating of claim 184, wherein the liquid organic compound comprises an-~~oxygenated~~ oxygenated compound.

Claim 196 (currently amended): The coating of claim 195, wherein the-~~oxygenated~~ oxygenated compound comprises an alcohol, an ester, a glycol ether, a ketone, an ether, or a combination thereof.

Claim 197 (currently amended): The coating of claim 196, wherein the-~~oxygenated~~ oxygenated compound comprises an alcohol.

Claim 198 (original): The coating of claim 197, wherein the alcohol comprises methanol, ethanol, propanol, isopropanol, 1-butanol, isobutanol, 2-butanol, *tert*-butanol, amyl alcohol, isoamyl alcohol, hexanol, methylisobutylcarbinol, 2-ethylbutanol, isooctyl alcohol, 2-ethylhexanol, isodecanol, cyclohexanol, methylcyclohexanol, trimethylcyclohexanol, benzyl alcohol, methylbenzyl alcohol, furfuryl alcohol, tetrahydrofurfuryl alcohol, diacetone alcohol, trimethylcyclohexanol, or a combination thereof.

Claim 199 (currently amended): The coating of claim 196, wherein the ~~oxygenated~~ oxygenated compound comprises an ester.

Claim 200 (original): The coating of claim 199, wherein the ester comprises methyl formate, ethyl formate, butyl formate, isobutyl formate, methyl acetate, ethyl acetate, propyl acetate, isopropyl acetate, butyl acetate, isobutyl acetate, *sec*-butyl acetate, amyl acetate, isoamyl acetate, hexyl acetate, cyclohexyl acetate, benzyl acetate, methyl glycol acetate, ethyl glycol acetate, butyl glycol acetate, ethyl diglycol acetate, butyl diglycol acetate, 1-methoxypropyl acetate, ethoxypropyl acetate, 3-methoxybutyl acetate, ethyl 3-ethoxypropionate, isobutyl isobutyrate, ethyl lactate, butyl lactate, butyl glycolate, dimethyl adipate, glutarate, succinate, ethylene carbonate, propylene carbonate, butyrolactone, or a combination thereof.

Claim 201 (currently amended): The coating of claim 196, wherein the ~~oxygenated~~ oxygenated compound comprises a glycol ether.

Claim 202 (original): The coating of claim 201, wherein the glycol ether comprises methyl glycol, ethyl glycol, propyl glycol, isopropyl glycol, butyl glycol, methyl diglycol, ethyl diglycol, butyl diglycol, ethyl triglycol, butyl triglycol, diethylene glycol dimethyl ether, methoxypropanol, isobutoxypropanol, isobutyl glycol, propylene glycol monoethyl ether, 1-isopropoxy-2-propanol, propylene glycol mono-*n*-propyl ether, propylene glycol *n*-butyl ether, methyl dipropylene glycol, methoxybutanol, or a combination thereof.

Claim 203 (currently amended): The coating of claim 196, wherein the ~~oxygenated~~ oxygenated compound comprises a ketone.

Claim 204 (original): The coating of claim 203, wherein the ketone comprises acetone, methyl ethyl ketone, methyl propyl ketone, methyl isopropyl ketone, methyl butyl ketone, methyl isobutyl ketone, methyl amyl ketone, methyl isoamyl ketone, diethyl ketone, ethyl amyl ketone, dipropyl ketone, diisopropyl ketone, cyclohexanone, methylcyclohexanone, trimethylcyclohexanone, mesityl oxide, diisobutyl ketone, isophorone, or a combination thereof.

Claim 205 (currently amended): The coating of claim 196, wherein the ~~oxygenated~~ oxygenated compound comprises an ether.



Claim 206 (original): The coating of claim 205, wherein the ether comprises diethyl ether, diisopropyl ether, dibutyl ether, di-sec-butyl ether, methyl tert-butyl ether, tetrahydrofuran, 1,4-dioxane, metadioxane, or a combination thereof.

Claim 207 (original): The coating of claim 184, wherein the liquid organic compound comprises a chlorinated hydrocarbon.

Claim 208 (original): The coating of claim 207, wherein the chlorinated hydrocarbon comprises methylene chloride, trichloromethane, tetrachloromethane, ethyl chloride, isopropyl chloride, 1,2-dichloroethane, 1,1,1-trichloroethane, trichloroethylene, 1,1,2,2-tetrachloroethane, 1,2-dichloroethylene, perchloroethylene, 1,2-dichloropropane, chlorobenzene, or a combination thereof.

Claim 209 (original): The coating of claim 184, wherein the liquid organic compound comprises a nitrated hydrocarbon.

Claim 210 (original): The coating of claim 209, wherein the nitrated hydrocarbon comprises a nitroparaffin, N-methyl-2-pyrrolidone, or a combination thereof.

Claim 211 (original): The coating of claim 184, wherein the liquid organic compound comprises a miscellaneous organic liquid.

Claim 212 (currently amended): The coating of ~~claim 209~~ claim 211, wherein the miscellaneous organic liquid comprises carbon dioxide; acetic acid, methylal, dimethylacetal, N,N-dimethylformamide, N,N-dimethylacetamide, dimethylsulfoxide, tetramethylene suflone, carbon disulfide, 2-nitropropane, N-methylpyrrolidone, hexamethylphosphoric triamide, 1,3-dimethyl-2-imidazolidinone, or a combination thereof.

Claim 213 (original): The coating of claim 184, wherein the liquid organic compound comprises a plasticizer.

Claim 214 (original): The coating of claim 213, wherein the plasticizer comprises an adipate, an azelate, a citrate, a chlorinated plasticizer, an epoxide, a phosphate, a sebacate, a phthalate, a polyester, a trimellitate, or a combination thereof.

Claim 215 (currently amended): The coating of ~~claim 180~~ claim 182, wherein the liquid component comprises an inorganic compound.

Claim 216 (original): The coating of claim 215, wherein the inorganic compound comprises ammonia, hydrogen cyanide, hydrogen fluoride, hydrogen cyanide, sulfur dioxide, or a combination thereof.

Claim 217 (currently amended): The coating of ~~claim 180~~ claim 182, wherein the liquid component comprises water.

Claim 218 (original): The coating of claim 217, wherein the liquid component further comprises methanol, ethanol, propanol, isopropyl alcohol, *tert*-butanol, ethylene glycol, methyl glycol, ethyl glycol, propyl glycol, butyl glycol, ethyl diglycol, methoxypropanol, methyldipropylene glycol, dioxane, tetrahydrofuran, acetone, diacetone alcohol, dimethylformamide, dimethyl sulfoxide, ethylbenzene, tetrachloroethylene, *p*-xylene, toluene, diisobutyl ketone, trichloroethylene, trimethylcyclohexanol, cyclohexyl acetate, dibutyl ether, trimethylcyclohexanone, 1,1,1-trichloroethane, hexane, hexanol, isobutyl acetate, butyl acetate, isophorone, nitropropane, butyl glycol acetate, 2-nitropropane, methylene chloride, methyl isobutyl ketone, cyclohexanone, isopropyl acetate, methylbenzyl alcohol, cyclohexanol, nitroethane, methyl *tert*-butyl ether, ethyl acetate, diethyl ether, butanol, butyl glycolate, isobutanol, 2-butanol, propylene carbonate, ethyl glycol acetate, methyl acetate, methyl ethyl ketone, or a combination thereof.

Claim 219 (original): The coating of claim 87, wherein the coating comprises a colorant.

Claim 220 (currently amended): The coating of claim 219, wherein the colorant comprises a pigment, a dye, or a combination thereof.

Claim 221 (original): The coating of claim 220, wherein the colorant comprises a pigment.

Claim 222 (original): The coating of claim 221, wherein the biomolecule composition comprises 0.001% to 100% of the pigment.

Claim 223 (currently amended): The coating of ~~claim 222~~ claim 221, wherein the pigment volume concentration of the coating is 20% to 60%.

Claim 224 (original): The coating of claim 221, wherein the pigment comprises a corrosion resistance pigment, a camouflage pigment, a color property pigment, an extender pigment, or a combination thereof.

Claim 225 (original): The coating of claim 224, wherein the pigment comprises a corrosion resistance pigment.

Claim 226 (original): The coating of claim 225, wherein the corrosion resistance pigment comprises aluminum flake, aluminum triphosphate, aluminum zinc phosphate, ammonium chromate, barium borosilicate, barium chromate, barium metaborate, basic calcium zinc molybdate, basic carbonate white lead, basic lead silicate, basic lead silicochromate, basic lead silicosulfate, basic zinc molybdate, basic zinc molybdate-phosphate, basic zinc molybdenum phosphate, basic zinc phosphate hydrate, bronze flake, calcium barium phosphosilicate, calcium borosilicate, calcium chromate, calcium plumbate, calcium strontium phosphosilicate, calcium strontium zinc phosphosilicate, dibasic lead phosphite, lead chromosilicate, lead cyanamide, lead suboxide, lead sulfate, mica, micaceous iron oxide, red lead, steel flake, strontium borosilicate, strontium chromate, tribasic lead phosphosilicate, zinc borate, zinc borosilicate, zinc chromate, zinc dust, zinc hydroxy phosphite, zinc molybdate, zinc oxide, zinc phosphate, zinc potassium chromate, zinc silicophosphate hydrate, zinc tetraoxylchromate, or a combination thereof.

Claim 227 (original): The coating of claim 225, wherein the coating is a metal surface coating.

Claim 228 (original): The coating of claim 225, wherein the coating is a primer.

Claim 229 (original): The coating of claim 224, wherein the pigment comprises a camouflage pigment.

Claim 230 (original): The coating of claim 229, wherein the camouflage pigment comprises an anthraquinone black, a chromium oxide green, or a combination thereof.

Claim 231 (original): The coating of claim 224, wherein the pigment comprises a color property pigment.

Claim 232 (original): The coating of claim 231, wherein the color property pigment comprises a black pigment, a brown pigment, a white pigment, a pearlescent pigment, a violet pigment, a blue pigment, a green pigment, a yellow pigment, an orange pigment, a red pigment, a metallic pigment, or a combination thereof.

Claim 233 (currently amended): The coating of claim 232, wherein the color property pigment comprises aniline black; anthraquinone black; carbon black; copper carbonate; graphite; iron oxide; micaceous iron oxide; manganese dioxide, azo condensation, ~~benzimidazolone, iron oxide~~; metal complex brown; antimony oxide; basic lead carbonate; lithopone; titanium dioxide; white lead; zinc oxide; zinc sulphide; titanium dioxide and ferric oxide covered mica, bismuth oxychloride crystal, ~~dioxanine dioxazine violet, carbazol-Blue~~; carbazole Blue; cobalt blue; ~~copper phthalocyanine, dioxanine-Blue~~; indanthrone; ~~phthalocyanin~~ phthalocyanine blue; Prussian blue; ultramarine; chrome green; ~~chromium oxide-green~~; ~~halogenated copper phthalocyanine~~; hydrated chromium oxide; phthalocyanine green; anthrapyrimidine; arylamide yellow; barium chromate; benzimidazolone yellow; bismuth vanadate; cadmium sulfide yellow; complex inorganic color-pigment; diarylide yellow; disazo condensation; flavanthrone; isoindoline; isoindolinone; lead chromate; nickel azo yellow; organic metal complex; ~~quinophthalone~~; yellow iron oxide; ~~yellow oxide~~; zinc chromate; perinone orange; pyrazolone orange; anthraquinone; benzimidazolone; BON arylamide; cadmium red; cadmium selenide; chrome red; dibromanthrone; ~~diketopyrrolo-pyrrole-pigment; disazo condensation-pigment~~; lead molybdate; perylene; pyranthrone; quinacridone; quinophthalone; red iron oxide; red lead; toluidine red; ~~tonor-pigment~~;  $\beta$ -naphthol red; aluminum flake; aluminum non-leafing, gold bronze flake, zinc dust, stainless steel flake, nickel flake, nickel powder, or a combination thereof.

Claim 234 (original): The coating of claim 224, wherein the pigment comprises an extender pigment.

Claim 235 (currently amended): The coating of claim 234, wherein the extender pigment comprises a barium sulphate, a calcium carbonate, a kaolin, a calcium-~~sulphat~~ sulphate, a silicate, a silica, an alumina trihydrate; or a combination thereof.

Claim 236 (original): The coating of claim 87, wherein the coating comprises an additive.

Claim 237 (original): The coating of claim 236, wherein the additive comprises 0.001% to 20.0% by weight, of the coating.

Claim 238 (original): The coating of claim 236, wherein said additive comprises an accelerator, an adhesion promoter, an antifoamer, anti-insect additive, an antioxidant, an antiskinning agent, a buffer, a catalyst, a coalescing agent, a corrosion inhibitor, a defoamer, a dehydrator, a dispersant, a drier, electrical additive, an emulsifier, a filler, a flame/fire retardant, a flatting agent, a flow control agent, a gloss aid, a leveling agent, a marproofing agent, a preservative, a silicone additive, a slip agent, a surfactant, a light stabilizer, a rheological control agent, a wetting additive, or a combination thereof.

Claim 239 (currently amended): The coating of ~~claim 236~~ claim 238, wherein the additive comprises a preservative.

Claim 240 (original): The coating of claim 239, wherein the preservative comprises an in-can preservative, an in-film preservative, or a combination thereof.

Claim 241 (original): The coating of claim 239, wherein the preservative comprises a biocide.

Claim 242 (original): The coating of claim 241, wherein the biocide comprises a bactericide, a fungicide, an algaecide, or a combination thereof.

Claim 243 (currently amended): The coating of ~~claim 236~~ claim 238, wherein the additive comprises a wetting additive, a dispersant, or a combination thereof.

Claim 244 (currently amended): The coating of ~~claim 236~~ claim 238, wherein the additive comprises an ~~anti-foamer~~ antifoamer, a defoamer, or a combination thereof.

Claim 245 (original): The coating of claim 238, wherein the additive comprises a rheological control agent.

Claim 246 (original): The coating of claim 245, wherein the rheological control agent comprises a thickener, a viscosifier, or a combination thereof.

Claim 247 (original): The coating of claim 238, wherein the additive comprises a corrosion inhibitor.

Claim 248 (original): The coating of claim 247, wherein said corrosion inhibitor comprises an in-can corrosion inhibitor, a flash corrosion inhibitor, or a combination thereof.

Claim 249 (original): The coating of claim 238, wherein the additive comprises a light stabilizer.

Claim 250 (original): The coating of claim 249, wherein the light stabilizer comprises a UV absorber, a radical scavenger, or a combination thereof.

Claim 251 (original): The coating of claim 1, wherein the coating is a multi-pack coating.

Claim 252 (currently amended): The coating of claim 251, wherein the multi-pack coating is stored in a two to five containers prior to application to ~~the~~ a surface.

Claim 253 (currently amended): The coating of claim 251, wherein 0.001% to 100% of the ~~biomolecular~~ biomolecule composition is stored in a container of ~~a~~ the multi-pack coating, and at least one additional coating component is stored in another container of ~~a~~ the multi-pack coating.

Claim 254 (currently amended): The coating of claim 253, wherein the container ~~comprising that stores the~~ biomolecular biomolecule composition further ~~comprises~~ stores an additional coating component.

Claim 255 (original): The coating of claim 254, wherein the additional coating component comprises a preservative, a wetting agent, a dispersing agent, a buffer, a liquid component, a rheological modifier, or a combination thereof.

Claim 256 (currently amended): The coating of ~~claim 255~~ claim 254, wherein the additional coating component comprises glycerol.

Claim 257 (currently amended): A method of detoxification of a surface contaminated with an organophosphorus compound, comprising the ~~steps~~ step of: contacting a surface contaminated with an organophosphorous compound with a coating comprising a biomolecule composition, wherein the biomolecule composition comprises a phosphoric triester hydrolase.

Claim 258 (original): The method of claim 257, wherein said organophosphorus compound comprises a chemical warfare agent.

Claim 259 (original): The method of claim 258, wherein the chemical warfare agent comprises a persistent agent.

Claim 260 (original): The method of claim 258, wherein the chemical warfare agent comprises a G-agent, a V agent, or a combination thereof.

Claim 261 (original): The method of claim 260, wherein said G-agent comprises soman, sarin, cyclosarin, tabun, or a combination thereof.

Claim 262 (original): The method of claim 260, wherein said V-agent comprises VX, Russian VX, or a combination thereof.

Claim 263 (original): The method of claim 257, wherein said organophosphorus compound comprises a pesticide.

Claim 264 (original): The method of claim 263, wherein the pesticide comprises a persistent organophosphorous compound.

Claim 265 (currently amended): The method of ~~claim 258~~ claim 263, wherein the pesticide comprises bromophos-ethyl, chlorpyrifos, chlorfenvinphos, chlorothiophos, chlorpyrifos-methyl, coumaphos, crotoxyphos, cruformate, cyanophos, diazinon, dichlofenthion, dichlorvos, ~~dursban~~, EPN, ethoprop, ~~ethyl-parathion~~, etrimifos, famphur, fensulfothion, fenthion, fenthrothion, isofenphos, jodfenphos, leptophos-oxon, malathion, methyl-parathion, mevinphos, paraoxon, parathion, ~~parathion-methyl~~, pirimiphos-ethyl, pirimiphos-methyl, pyrazophos, quinalphos, ronnel, sulfopros, sulfotepp, trichloronate, or a combination thereof.

Claim 266 (original): The method of claim 257, wherein the method further comprises the step of contacting the surface with a caustic agent; a decontaminating foam, a combination of baking condition heat and carbon dioxide, or a combination thereof.

Claim 267 (currently amended): A method of detoxification of an organophosphorus compound, comprising the ~~steps~~ step of: contacting an organophosphorous compound with a coating comprising a biomolecule composition, wherein the biomolecule composition comprises a phosphoric triester hydrolase.

Claim 268 (original): A method of reducing the concentration of an organophosphorus compound upon a surface, comprising the steps of: applying to the surface a coating comprising a biomolecule composition, wherein the biomolecule composition comprises a phosphoric triester hydrolase, and contacting the surface with an organophosphorus compound.

Claim 269 (original): A coating comprising 0.001% to 40% by weight or volume a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 270 (original): A coating comprising a biomolecule composition, wherein the biomolecule composition comprises a proteinaceous molecule that binds a ligand.

Claim 271 (original): A coating comprising a biomolecule composition, wherein the biomolecule composition comprises an enzyme.

Claim 272 (original): A coating comprising a biomolecule composition, wherein the biomolecule composition comprises a phosphoric triester hydrolase.

Claim 273 (original): A coating comprising a biomolecule composition, wherein the biomolecule composition comprises an organophosphorus hydrolase.

Claim 274 (original): A coating comprising a biomolecule composition, wherein the biomolecule composition comprises an organophosphorus hydrolase and a buffer.

Claim 275 (original): A coating comprising a microorganism based particulate material, wherein the microorganism based particulate material that comprises an active biomolecule.

Claim 276 (original): A coating comprising a whole cell particulate material, wherein the particulate material comprises an active biomolecule.

Claim 277 (original): A coating comprising 0.001% to 40% by weight or volume of a whole cell particulate material, wherein the whole cell particulate material comprises an active biomolecule.

Claim 278 (original): A coating comprising a whole cell particulate material, wherein the particulate material comprises an enzyme.

Claim 279 (original): A coating comprising a whole cell particulate material, wherein the particulate material comprises a phosphoric triester hydrolase.

Claim 280 (original): A coating comprising a whole cell particulate material, wherein the particulate material comprises an organophosphorus hydrolase.

Claim 281 (original): A coating comprising a whole cell particulate material, wherein the particulate material comprises an organophosphorus hydrolase and a buffer.

Claim 282 (original): A coating, the improvement comprising inclusion of a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 283 (original): A coating, the improvement comprising inclusion of 0.001% to 40% by weight or volume a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 284 (original): A coating, the improvement comprising inclusion of a biomolecule composition, wherein the biomolecule composition comprises a proteinaceous molecule that binds a ligand.

Claim 285 (original): A coating, the improvement comprising inclusion of a biomolecule composition, wherein the biomolecule composition comprises an enzyme.

Claim 286 (original): A coating, the improvement comprising inclusion of a biomolecule composition, wherein the biomolecule composition comprises a phosphoric triester hydrolase.



Claim 287 (original): A coating, the improvement comprising inclusion of a biomolecule composition, wherein the biomolecule composition comprises an organophosphorus hydrolase.

Claim 288 (original): A coating, the improvement comprising inclusion of a biomolecule composition, wherein the biomolecule composition comprises an organophosphorus hydrolase and a buffer.

Claim 289 (original): A coating, the improvement comprising inclusion of a microorganism based particulate material, wherein the microorganism based particulate material that comprises an active biomolecule.

Claim 290 (original): A coating, the improvement comprising inclusion of a whole cell particulate material, wherein the particulate material comprises an active biomolecule.

Claim 291 (original): A coating, the improvement comprising inclusion of 0.001% to 40% by weight or volume of a whole cell particulate material, wherein the whole cell particulate material comprises an active biomolecule.

Claim 292 (original): A coating, the improvement comprising inclusion of a whole cell particulate material, wherein the particulate material comprises an enzyme.

Claim 293 (original): A coating, the improvement comprising inclusion of a whole cell particulate material, wherein the particulate material comprises a phosphoric triester hydrolase.

Claim 294 (original): A coating, the improvement comprising inclusion of a whole cell particulate material, wherein the particulate material comprises an organophosphorus hydrolase.

Claim 295 (original): A coating, the improvement comprising inclusion of a whole cell particulate material, wherein the particulate material comprises an organophosphorus hydrolase and a buffer.

Claim 296 (original): A water-borne paint comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 297 (original): A solvent-borne paint comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 298 (original): A latex paint comprising a whole cell particulate material, wherein the whole cell particulate material comprises a phosphoric triester hydrolase.

Claim 299 (original): An oil-based paint comprising a whole cell particulate material, wherein the whole cell particulate material comprises a phosphoric triester hydrolase.

Claim 300 (original): A latex paint comprising a whole cell particulate material and a buffer, wherein the whole cell particulate material comprises a phosphoric triester hydrolase.

Claim 301 (original): An oil-based paint comprising a whole cell particulate material and a buffer, wherein the whole cell particulate material comprises a phosphoric triester hydrolase.

Claim 302 (original): An latex paint comprising 0.001% to 40% by weight or volume of a whole cell particulate material, wherein the whole cell particulate material comprises a phosphoric triester hydrolase.

Claim 303 (original): An oil-based paint comprising 0.001% to 40% by weight or volume of a whole cell particulate material, wherein the whole cell particulate material comprises a phosphoric triester hydrolase.

Claim 304 (original): A multi-pack latex paint, wherein one container comprises 0.001% to 40%, by weight or volume of the paint, a whole cell particulate material, wherein the whole cell particulate material comprises a phosphoric triester hydrolase.

Claim 305 (original): A multi-pack oil-based paint, wherein one container comprises 0.001% to 40%, by weight or volume of the paint, a whole cell particulate material, wherein the whole cell particulate material comprises a phosphoric triester hydrolase.

Claim 306 (original): A multi-pack latex paint, wherein one container comprises 0.001% to 40%, by weight or volume of the paint, a whole cell particulate material, wherein the whole cell particulate material comprises a phosphoric triester hydrolase, and wherein the container comprising the whole cell particulate material further comprises a preservative, a wetting agent, a dispersing agent, a buffer, a liquid component, a rheological modifier, or a combination thereof.

Claim 307 (original): A multi-pack oil-based paint, wherein one container comprises 0.001% to 40%, by weight or volume of the paint, a whole cell particulate material, wherein the whole cell particulate material comprises a phosphoric triester hydrolase, and wherein the container comprising the whole cell particulate material further comprises a preservative, a wetting agent, a dispersing agent, a buffer, a liquid component, a rheological modifier, or a combination thereof.

Claim 308 (currently amended): A two-pack latex paint, wherein one container comprises 100 parts by volume paint, wherein a second container comprises three parts by volume of a ~~biomolecular~~ biomolecule composition comprising a whole cell particulate material, wherein the whole cell particulate material comprises an organophosphorus hydrolase, and wherein each part of the ~~biomolecular~~ biomolecule composition comprises 1 mg per milliliter of whole cell particulate material and 50% glycerol.

Claim 309 (currently amended): An two-pack oil-based paint, wherein one container comprises 100 parts by volume paint, wherein a second container comprises three parts by volume of a ~~biomolecular~~ biomolecule composition comprising a whole cell particulate material, wherein the whole cell particulate material comprises an organophosphorus hydrolase, and wherein each part of the ~~biomolecular~~ biomolecule composition comprises 1 mg per milliliter of whole cell particulate material and 50% glycerol.

Claim 310 (currently amended): A two-pack latex paint, wherein one container comprises 100 parts by volume paint, wherein a second container comprises three parts by volume of a ~~biomolecular~~ biomolecule composition comprising a whole cell particulate material, wherein the whole cell particulate material comprises an organophosphorus hydrolase, wherein each part of the ~~biomolecular~~ biomolecule composition comprises 1 mg per milliliter of whole cell particulate material, wherein the paint comprises a buffer, and wherein the buffer comprises ammonium bicarbonate, a monobasic buffer, a dibasic phosphate buffer, Trizma base, a five zwitterionic buffer, or a combination thereof.

Claim 311 (currently amended): An two-pack oil-based paint, wherein one container comprises 100 parts by volume paint, wherein a second container comprises three parts by volume of a ~~biomolecular~~ biomolecule composition comprising a whole cell particulate material, wherein the whole cell particulate material comprises an organophosphorus hydrolase, wherein each part of the ~~biomolecular~~ biomolecule composition comprises 1 mg per milliliter of milliliter of whole cell particulate material, wherein the paint comprises a buffer, and wherein the buffer comprises ammonium bicarbonate, a monobasic buffer, a dibasic phosphate buffer, Trizma base, a five zwitterionic buffer, or a combination thereof.

Claim 312 (original): A non-film forming coating comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 313 (original): An elastomer comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 314 (original): A filler comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 315 (original): An adhesive comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 316 (original): A sealant comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 317 (original): A material applied to a textile, comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 318 (original): A wax comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 319 (original): A surface treatment comprising a biomolecule composition, wherein the biomolecule composition comprises an active biomolecule.

Claim 320 (currently amended): A surface treatment of ~~Claim~~ claim 319, wherein the surface treatment is a coating, a paint, a non-film forming coating, an elastomer, an adhesive, an sealant, a material applied to a textile, or a wax.

Claim 321 (currently amended): The surface treatment of ~~Claim~~ claim 320, wherein the surface treatment comprises a pH indicator.

Claim 322 (new): The coating of claim 45, wherein the organophosphorus acid anhydrolase comprises an *Acinetobacter calcoaceticus* ATCC 19606 OPAA, an *Aeromonas hydrophila* ATCC 7966 OPAA, an *Aeromonas proteolytica* OPAA, an *Arm. A* isolate 1 OPAA, an *Arm. A* isolate 2 OPAA, a *Bacillus subtilis* (fr. Zuberer) OPAA, a *Bacillus subtilis* OPAA, a ATCC 18685 OPAA, a *Bacillus subtilis* BRB41 OPAA, a *Bacillus subtilis* Q OPAA, a *Bacillus thuringiensis* (fr. Zuberer) OPAA, a *Burkholderia cepacia* LB400 OPAA, a *Burkholderia cepacia* T OPAA, a *Citrobacter diversus* OPAA, a *Citrobacter freundii* ATCC 8090 OPAA, an *Edwardsiella tarda* ATCC 15947 OPAA, an *Enterobacter aerogenes* ATCC 13048 OPAA, an *Enterobacter cloacae* 96-3 OPAA, an *Enterobacter liquefaciens* 363 OPAA, an *Enterobacter liquefaciens* 670 OPAA, an *Erwinia carotovora* EC189-67 OPAA, an *Erwinia herbicola* OPAA, an *Erwinia herbicola* (agglomerans) OPAA, an *Escherichia coli* E63 OPAA, a *Hafnia alvei* ATCC 13337 OPAA, a *Klebsiella pneumoniae* ATCC 13883 OPAA, a *Lactobacillus casei* 686 OPAA, a *Lactococcus lactis* subsp. *lactis* pIL253 OPAA, a *Proteus morganii* OPAA, a *Proteus vulgaris* ATCC 13315 OPAA, a *Pseudomonas aeruginosa* ATCC 10145 OPAA, a *Pseudomonas aeruginosa* ATCC 27853 OPAA, a *Pseudomonas fluorescens* OPAA, a *Pseudomonas putida* ATCC 18633 OPAA, a *Pseudomonas putida* PpY101 OPAA, a *Pseudomonas* sp. P OPAA, a *Salmonella typhimurium* ATCC 14028 OPAA, a *Serratia marcescens* ATCC 8100 OPAA, a *Serratia marcescens* HY OPAA, a *Serratia marcescens* Nima OPAA, a *Shigella flexneri* ATCC 12022 OPAA, a *Shigella sonnei* ATCC 25931 OPAA, a *Staphylococcus aureus* ATCC 25923 OPAA, a *Staphylococcus* sp. S OPAA, a *Streptococcus faecalis* ATCC 19433 OPAA, a *Vibrio parahaemolyticus* TAMU 109 OPAA, a *Yersinia enterocolitica* ATCC 9610 OPAA, a *Yersinia enterocolitica* TAMU 84 OPAA, a *Yersinia frederiksenii* TAMU 91 OPAA, a *Yersinia intermedia* ATCC 29909 OPAA, a *Yersinia intermedii* TAMU 86 OPAA, a *Yersinia kristensenii* ATCC 33640 OPAA, a *Yersinia kristensenii* TAMU 95 OPAA, a *Yersinia* sp. ATCC 29912 OPAA, a *Vibrio proteolyticus* ATCC 15338 OPAA, a *Thermus* sp. ATCC 31674 OPAA, a *Streptomyces cinnamonensis* subsp. *Proteolyticus* ATCC 19893 OPAA, a *Deinococcus proteolyticus* ATCC 35074 OPAA, a *Clostridium proteolyticum* ATCC 49002 OPAA, an *Aeromonas jandaei* ATCC 49568 OPAA, an *Aeromonas veronii* biogroup *sobria* ATCC 9071 OPAA, a *Pseudoalteromonas haloplanktis* ATCC 23821 OPAA, a *Xanthomonas campestris* ATCC 33913 OPAA, a *Pseudoalteromonas espejiana* ATCC 27025 OPAA, a *Shewanella putrefaciens* ATCC 8071 OPAA, a *Stenotrophomonas maltophilus* ATCC 13637 OPAA, an *Ochrobactrum anthropi* ATCC 19286 OPAA, a *Desulfovibrio vulgaris* OPAA, or a combination thereof.

Claim 323 (new): The coating of claim 73, wherein the biocarbonate comprises an ammonium bicarbonate.

Claim 324 (new): The coating of claim 72, wherein the buffer comprises a monobasic phosphate buffer, a dibasic phosphate buffer, Trizma base, a 5 zwitterionic buffer, triethanolamine, or a combination thereof.

Claim 325 (new): The coating of claim 213, wherein the plasticizer comprises di(2-ethylhexyl) azelate; di(butyl) sebacate; di(2-ethylhexyl) phthalate; di(isononyl) phthalate; dibutyl phthalate; butyl benzyl phthalate; di(isooctyl) phthalate; di(idodecyl) phthalate; tris(2-ethylhexyl) trimellitate; tris(isononyl) trimellitate; di(2-ethylhexyl) adipate; di(isononyl) adipate; acetyl tri-*n*-butyl citrate; an epoxy modified soybean oil; 2-ethylhexyl epoxytallate; isodecyl diphenyl phosphate; tricresyl phosphate; isodecyl diphenyl phosphate; tri-2-ethylhexyl phosphate; an adipic acid polyester; an azelaic acid polyester; or a bisphenoxyethylformal.

Claim 326 (new): The coating of claim 221, wherein the pigment comprises barium ferrite; borosilicate; burnt sienna; burnt umber; calcium ferrite; cerium; chrome orange; chrome yellow; chromium phosphate; cobalt-containing iron oxide; fast chrome green; gold bronze powder; luminescent; magnetic; molybdate orange; molybdate red; oxazine; oxysulfide; polycyclic; raw sienna; surface modified pigment; thiazine; thioindigo; transparent cobalt blue; transparent cobalt green; transparent iron blue; transparent zinc oxide; triarylcarbonium; zinc cyanamide; or zinc ferrite.

Claim 327 (new): The coating of claim 229, wherein the camouflage pigment reduces the ability of the coating to be detected by a device that measures infrared radiation.

Claim 328 (new): The coating of claim 239, wherein the preservative comprises 1-(3-chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride; 1,2-benzisothiazoline-3-one; 1,2-dibromo-2,4-dicyanobutane; 1,3-bis(hydroxymethyl)-5,5-dimethylhydantoin; 1-methyl-3,5,7-triaza-1-azoniaadamantane chloride; 2-(4-thiazolyl)benzimidazole; 2-(hydroxymethyl)-amino-2-methyl-1-propanol; 2(hydroxymethyl)-aminoethanol; 2,2-dibromo-3-nitrilopropionamide; 2,4,5,6-tetrachloro-isophthalonitrile; 2-mercaptobenzo-thiazole; 2-methyl-4-isothiazolin-3-one; 2-n-octyl-4-isothiazoline-3-one; 3-iodo-2-propynyl N-butyl carbamate; 4,4-dimethyloxazolidine; 5-chloro-2-methyl-4-isothiazolin-3-one; 5-hydroxy-methyl-1-aza-3,7-dioxabicyclo (3.3.0.) octane; 6-acetoxy-2,4-dimethyl-1,3-dioxane; 7-ethyl bicyclocloxazolidine; a combination of 2-(thiocyanomethyl-thio)benzothiazole and methylene bis(thiocyanate); a combination of 4-(2-nitrobutyl)-morpholine and 4,4'-(2-ethylnitrotrimethylene) dimorpholine; a combination of 4,4-dimethyl-oxazolidine and 3,4,4-trimethyloxazolidine; a combination of 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one; a combination of chlorothalonil and 3-iodo-2-propynyl N-butyl carbamate; a combination of chlorothalonil and a triazine compound; a combination of tributyltin benzoate and alkylamine hydrochlorides; a combination of zinc-dimethyldithiocarbamate and zinc 2-mercaptobenzothiazole; a copper soap; a metal soap, a mercury soap; a mixture of bicyclic oxazolidines; a tin soap; an alkylamine hydrochloride; an amine reaction product; barium metaborate; butyl parahydroxybenzoate; copper(II) 8-quinolinolate; diiodomethyl-p-tolysulfone; ethyl parahydroxybenzoate; glutaraldehyde; hexahydro-1,3,5-triethyl-s-triazine; hydroxymethyl-5,5-dimethylhydantoin; methyl parahydroxybenzoate; N-(trichloromethylthio) phthalimide; N-cyclopropyl-N-(1-dimethylethyl)-6-(methylthio)-1,3,5-triazine-2,4-diamine; N-trichloromethyl-thio-4-cyclohexene-1,2-dicarboximide; p-chloro-m-cresol; phenylmercuric acetate; potassium dimethyldithiocarbamate; potassium N-hydroxy-methyl-N-methyl-dithiocarbamate; propyl parahydroxybenzoate; sodium 2-pyridinethiol-1-oxide; tetra-hydro-3,5-di-methyl-2H-1,3,5-thiadiazine-2-thione; tributyltin benzoate; tributyltin oxide; tributyltin salicylate; zinc 2-pyridinethiol-N-oxide; zinc oxide; or a zinc soap.

Claim 329 (new): The coating of claim 243, wherein the additive comprises a combination of an unsaturated polyamine amide salt and a lower molecular weight acid; a polycarboxylic acid polymer alkylolammonium salt; a combination of a long chain polyamine amide salt and a polar acidic ester; a hydroxyfunctional carboxylic acid ester; or a non-ionic wetting agent.

Claim 330 (new): The coating of claim 243, wherein the additive comprises a wetting additive.

Claim 331 (new): The coating of claim 330, wherein the wetting additive comprises an ethylene oxide molecule comprising a hydrophobic moiety; a surfactant; pine oil; a metal soap; calcium octoate; zinc octoate; aluminum stearate; zinc stearate; bis(2-ethylhexyl)sulfosuccinate; (octylphenoxy)polyethoxyethanol octylphenyl-polyethylene glycol; nonyl phenoxy poly (ethylene oxy) ethanol; or ethylene glycol octyl phenyl ether.

Claim 332 (new): The coating of claim 243, wherein the additive comprises a dispersant.

Claim 333 (new): The coating of claim 332, wherein the dispersant comprises tetra-potassium pyrophosphate, a phosphate ester surfactant; a particulate material, a calcium carbonate coated with fatty acid, a modified montmorillonite clay, or a caster wax.

Claim 334 (new): The coating of claim 244, wherein the additive comprises an oil; a mineral oil; a silicon oil; a fatty acid ester; dibutyl phosphate; a metallic soap; a siloxane; a wax; an alcohol comprising six to ten carbons; or a pine oil.

Claim 335 (new): The coating of claim 244, wherein the coating further comprises an emulsifier, a hydrophobic silica, or a combination thereof.

Claim 336 (new): The composition of claim 245, wherein the rheology control agent comprises a silicate; a montmorillonite silicate; aluminum silicate, a bentonite, magnesium silicate, a cellulose ether, a hydrogenated oil, a polyacrylate, a polyvinylpyrrolidone, a urethane, a methyl cellulose, a hydroxyethyl cellulose, hydrogenated castor oil; a hydrophobically modified ethylene oxide urethane; a titanium chelate, or a zirconium chelate.

Claim 337 (new): The coating of claim 247, wherein the corrosion inhibitor comprises a chromate, a phosphate, a molybdate, a wollastonite, a calcium ion-exchanged silica gel, a zinc compound, a borosilicate, a phosphosilicate, a hydrotalcite, or a combination thereof.

Claim 338 (new): The coating of claim 248, wherein the corrosion inhibitor comprises sodium nitrate, sodium benzoate, ammonium benzoate, or 2-amino-2-methyl-propan-1-ol.

Claim 339 (new): The coating of claim 250, wherein the light stabilizer comprises a UV absorber.

Claim 340 (new): The coating of claim 339, wherein the UV absorber comprises a hydroxybenzophenone, a hydroxyphenylbenzotriazole, a hydroxyphenyl-S-triazine, an oxalic anilide, yellow iron oxide, or a combination thereof.



Claim 341 (new): The coating of claim 250, wherein the light stabilizer comprises a radical scavenger.

Claim 342 (new): The coating of claim 341, wherein the radical scavenger comprises a sterically hindered amine; bis(1,2,2,6,6,-pentamethyl-4-piperidinyloxy) ester, or bis(2,2,6,6,-tetramethyl-1-isooctyloxy-4-piperidinyloxy) ester.

Claim 343 (new): The coating of claim 1, wherein the coating is a coating capable of being applied to a surface by a spray applicator.

Claim 344 (new): The coating of claim 1, wherein the biomolecule composition is microencapsulated.

Claim 345 (new): The coating of claim 1, wherein the coating comprises a pH indicator.

Claim 346 (new): The coating of claim 345, wherein the pH indicator is a colorimetric indicator.

Claim 347 (new): The coating of claim 346, wherein the colorimetric indicator comprises Alizarin, Alizarin S, Brilliant Yellow, Lacmoid, Neutral Red, Rosolic Red, or a combination thereof.

Claim 348 (new): The coating of claim 345, wherein the pH indicator is a fluorimetric indicator.

Claim 349 (new): The coating of claim 348, wherein the fluorimetric indicator comprises SNARF-1, BCECF, HPTS, Fluorescein, or a combination thereof.

Claim 350 (new): The coating of claim 345, wherein the pH indicator is a pH indicator that undergoes a color or fluorescence change between pH 8 to pH 9.